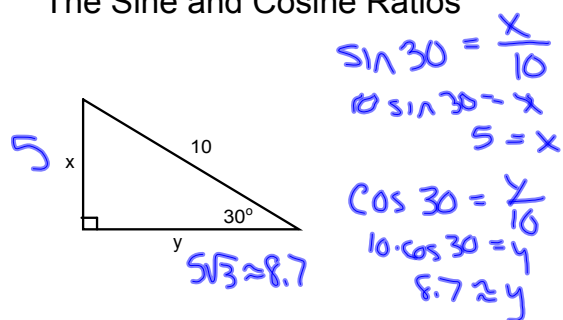


$$\tan A = \frac{\text{opp}}{\text{adj}}$$

7-4 (Continued)

The Sine and Cosine Ratios



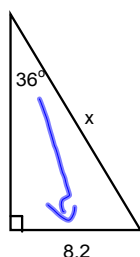
$$\sin = \frac{\text{opposite}}{\text{hypotenuse}}$$

$$\cos = \frac{\text{adjacent}}{\text{hypotenuse}}$$

$$\tan = \frac{\text{opposite}}{\text{adjacent}}$$

SOHCAHTOA

*Sin opp hyp Cos adj hyp Tan opp adj*

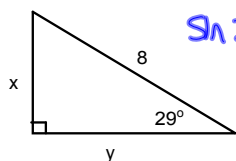


$$\sin 36 = \frac{8.2}{x}$$

$$x \sin 36 = 8.2$$

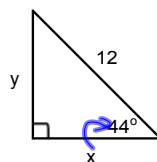
$$x = \frac{8.2}{\sin 36}$$

$$x \approx 14.0$$



$$\sin 29 = \frac{x}{8} \quad \cos 29 = \frac{y}{8}$$

$$x \approx 3.9 \quad y \approx 7.0$$



$$\cos 44 = \frac{x}{12}$$

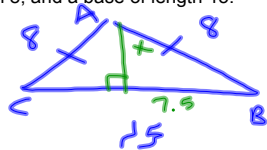
$$12 \cdot \cos 44 = x$$

$$8.6 \approx x$$

$$\sin 44 = \frac{y}{12}$$

$$8.3 \approx y$$

Find the vertex angle of an isosceles triangle with legs of length 8, and a base of length 15.



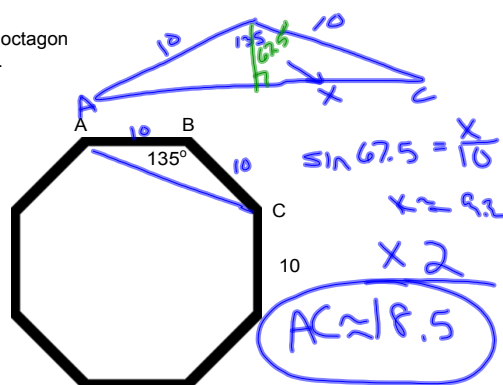
$$\sin x = \frac{7.5}{8}$$

$$\sin^{-1}\left(\frac{7.5}{8}\right) = x$$

$$x \approx 69.6$$

$$139.3^\circ \leftarrow \frac{x}{2}$$

Regular octagon  
Find AC.

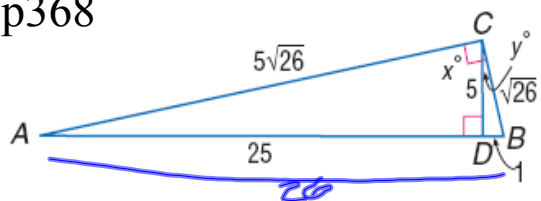


$$\sin 67.5 = \frac{x}{10}$$

$$x \approx 9.3$$

$$AC \approx 18.5$$

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28.  $\sin A$

31.  $\sin x^\circ$

34.  $\cos B$

29.  $\tan B$

32.  $\cos x^\circ$

35.  $\sin y^\circ$

30.  $\cos A$

33.  $\tan A$

36.  $\tan x^\circ$

HW  
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43-48, 50,  
51, 56-58